DECOMPOSING CHILD POVERTY REDUCTION

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ABSTRACT

European countries vary in the extent to which they succeed in reducing poverty using social transfers. However we do not have good ways of understanding how these different outcomes are achieved. It is therefore very difficult to learn lessons from abroad. This paper uses micro data from the EU Statistics on Income and Living Condition (SILC) and attempts to decompose reductions in child poverty rates and gaps into the contribution made by child, old age, social exclusion, housing and work-related benefits. The analysis is undertaken for all families with children under 16, lone parent families, couple families and then for families with varying levels of work intensity.

Transfers make a substantial contribution to reducing child poverty rates and closing poverty gaps. The contribution varies between countries in the European Union. There is no single model, no most successful exemplar. Some countries do better for their children in lone parent households and others do better for their children in couple households.

The analysis has enabled some opening up of the how question, though what is going on is still something of a mystery in some countries. It is probable that analysis at national level with greater knowledge of the national benefits systems is necessary to further open the 'black box'.

Key words: Decomposition analysis, child poverty, EU countries

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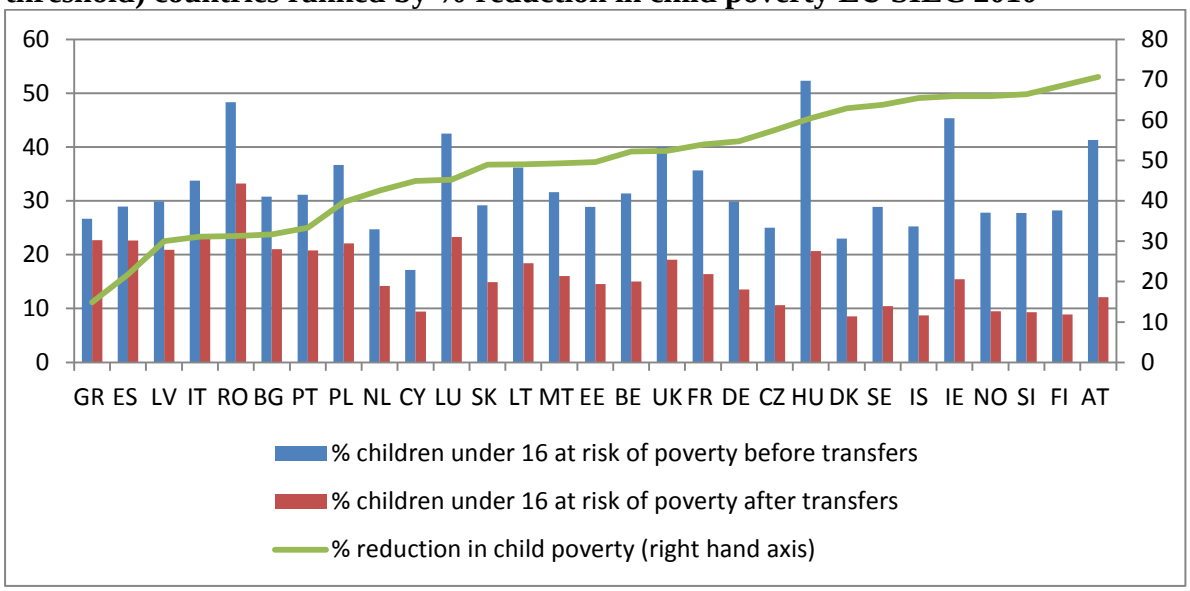
INTRODUCTION

All welfare states redistribute resources to achieve certain desired objectives. Market income is subject to direct taxes and social contributions. Indirect taxes are collected in consumption taxes and duties and also there may be taxes on corporations, inheritances and capital gains. Part of the revenue that is collected (and any borrowing) is used to pay cash benefits and provide in-kind services to achieve those desired objectives. Some of this redistributive effort is aimed to benefit families with children. The motives for redistribution in favour of families with children may vary from country to country and from time to time. Commonly there is a desire to achieve a greater degree of horizontal equity over the life cycle, to redistribute from periods of relative want to periods of relative plenty. Some countries are preoccupied by fertility and seek to incentivise child bearing with financial subsidies that mitigate the costs of child rearing. In many countries the focus of the redistributive effort is the reduction of child poverty. Market income (increasingly) does not guarantee an income sufficient to lift families with children above a poverty threshold, for example, in the EU the at-risk of poverty threshold (less than 60% of national median equivalent income).

OECD social expenditure data reveals that some countries spend a larger proportion of their Gross Domestic Product on families with children than others do - this is a measure of the effort that they make to help parents with the costs of child rearing. In 2009 Ireland spent 4.2% of GDP on family benefits and services and Greece spent 1.4% of GDP[1]. The analysis of micro survey data reveals that some countries achieve lower child poverty rates than others. It is even possible to assess how successful countries are in reducing their child poverty rates by using micro data to compare pre and post transfer child poverty rates. An example of this kind of analysis is given in Figure 1 for EU countries. While Greece reduces its pre transfer child poverty rate by 15% Austria reduces theirs by 71%.

[1] http://www.oecd.org/els/soc/oecdfamilydatabase.htm

Figure 1: Before and after transfer child (under 16) poverty rates (60% median threshold) countries ranked by % reduction in child poverty EU SILC 2010



Students of social security policy seek to understand these variations, in part to find out what mixture of benefits (and services, though not the focus here) are more or less successful in reducing child poverty. So this paper is a contribution to understanding how the countries achieve their child poverty reduction – which policies are more or less effective? It is therefore an attempt to learn lessons from abroad.

One approach to exploring this has been to compare the level and structure of the child benefit package using model family methods. The benefit entitlement can be estimated for model families earning a given per cent of the average wage and net income expressed as a proportion of the poverty threshold. This has been an approach used in Marx and Nelson[2]. The OECD *Benefits and Wages* series also enables this kind of analysis. It is useful but it can only be illustrative.

Another approach has been to model the odds of being poor using micro data and then introduce an indicator of the level of benefit income and observe how it changes the odds. Nelson[3] pioneered this approach in an analysis of social assistance and it has also been applied to benefit packages for lone parents[4].

Yet another approach is to use micro data and decompose the different elements that contribute to the pre and post transfer income distribution. In a recent example of this Wang et al used Luxembourg Income Study data to assess the redistributive effects of benefits and taxes[5]. The problem is that the benefit element remains a black box – it is not possible to tell which of the various benefits that are included in the package are doing the heavy lifting?

[2] Marx, I. and Nelson, K. (2012) (eds) *Minimum Income Protection in Europe*, Palgrave
[3] Nelson, K. 2012. 'Counteracting material deprivation: The role of social assistance in Europe', Journal of European Social Policy, Vol. 22(2): 148-63.
[4] Chzhen, Y. and Bradshaw, J. (2012) Lone parents, poverty and policy in the European union, *Journal of European Social Policy*, 22, 5.
[5] Wang, C., Caminada, K, and Goudswand, K. (2012) The redistributive effect of social transfers programmes and taxes: A decomposition, International Social Security review, 65, 3, 27-48.

Euromod is also a very useful vehicle for this type of analysis[6] but its micro data and policy details are inevitably rather out of date. Recently Van Lancker et al[7] made an advance by identifying the contribution of child benefits to poverty reduction using the EU Statistics on Incomes and Living Conditions (SILC) 2008. They estimated child poverty rates before and after child benefits and presented the absolute and relative poverty reduction achieved. They found reductions in poverty rates for two adults with children as high as 52 per cent in Austria and for lone mothers 48 per cent in Ireland.

Stimulated by their achievement this paper tries to take this approach a little further using a more recent EU SILC 2010 covering the EU 27 countries plus Norway and Iceland.

METHODS

EU SILC replaced the European Community Household Panel (ECHP) finally from 2005. It is an instrument aimed at collecting timely and comparable cross-sectional and longitudinal multidimensional micro data on income, poverty, social exclusion and living conditions. It is anchored in the European Statistical System (ESS). It is called Statistics rather than Survey because in some countries the data is derived from administrative sources rather than a sample survey. The EU-SILC provides two types of data:

• Annual cross-sectional data pertaining to a given time or a certain time period with variables on income, poverty, social exclusion and other living conditions.

• Longitudinal data pertaining to individual-level changes over time, observed periodically over a four-year period.

Social exclusion and housing condition information is collected mainly at household level while labour, education and health information is obtained for persons aged 16 and over. The core of the instrument, income at very detailed component level, is mainly collected at personal level. The EU-SILC has been used to provide data on the structural indicators of social cohesion (at-risk-of poverty rate, S80/S20) and in the context of the two Open Methods of Coordination in the field of social inclusion and pensions. Since 2010, the outset of the Europe 2020 strategy, EU-SILC data is being used for monitoring poverty and social inclusion in the EU. A headline poverty target on reducing by 20 million in 2020 the number of people under poverty and social exclusion has been defined based on the EU-SILC instrument. In the same political context a broader portfolio of indicators, including plenty of numerous EU-SILC based data, constitutes the Joint Assessment Framework (JAF) of the EU2020 strategy. All datasets under the Income and Living conditions (ILC) domain contain EU-SILC data.

Anyone attempting to decompose income elements in SILC data faces two main problems.

First, the unit of analysis in SILC is the household and a household may contain more than one benefit unit. So for example a household with parents and children may be receiving employment income for one of the parents, an out of work benefit for another parent or an older child and, if there is a grandparent in the household, there will also be pension income

[6] Figari, F., Paulus, A. and Sutherland, H. (2011). Measuring the size and impact of public cash support for children in cross-national perspective. Presentation at the Social Policy Research Centre, UNSW, Sydney 6-7 April 2011

Figari, F., Haux, T., Matsaganis, M., and Holly Sutherland, H. (2010). Coverage and adequacy of Minimum Income schemes in the European Union EUROMOD Working Paper Series: EM8/10

[7] Van Lancker, W., Ghysel, J. and Cantillon, B. (2012) An international comparison of the impact of child benefits for poverty outcomes for single mothers, CSB Working Paper 12/03

recorded. All these different elements will be treated as contributing to child poverty reduction whereas that is not always their purpose. Complex households are more common in some countries than others. Chzhen and Bradshaw found[8] 9% of lone parents with children were living in multi-unit households in Norway compared with 71% in Bulgaria.

It is possible to identify and isolate households containing only parents and their children by using mother, father and partner identifiers. Of all the households in SILC 2009-10 with children under 16

- 9% were lone parents with one or more children under 16,
- 60% were couples with one or more children under 16 and
- 31% were other more complex households with one or more children under 16.

In the first part of the analysis below all households with children are included but then the focus is on child poverty in households with one or two parents and no other adults.

Second, income is income over the previous year[9]. The household income may vary over the previous year. The household may fall in and out of employment, and change circumstances in many other ways. These changes will affect the benefits they receive and this may result in them moving into and out of poverty. If for example they are in-work but in poverty for nine months of the year and then become unemployed and in poverty for three months – unemployment benefit will not appear to have as much of an impact as it would if they had been unemployed for the whole year. We attempt to control for some of this 'noise' by doing the analysis separately for households with varying levels of work intensity.

SILC collects some income data at individual level and some at household level. Individual income components are:

- gross employee cash or near cash income
- company car
- gross cash benefits or losses from self-employment (including royalties)
- unemployment benefits
- old-age benefits
- survivor' benefits
- sickness benefits
- disability benefits
- education-related allowances

The following components are collected at household level:

- income from rental of a property or land
- family/children related allowances
- social exclusion not elsewhere classified
- housing allowances
- regular inter-household cash transfers received
- interests, dividends, profit from capital investments

[8] Chzhen, Y. and Bradshaw, J. (2012) Lone parents, poverty and policy in the European Union, *Journal of European Social Policy*, 22, 5.

[9] In EU-SILC 2009, income data generally refer to the total annual income of households in the year prior to the survey. The sole exceptions are the United Kingdom (total annual household income calculated on the basis of current income) and Ireland (calculation on the basis of a moving income reference period covering part of the year of the interview and part of the year prior to the survey).

- income received by people aged under 16

Individual income components were aggregated to household level and added to the household components to give total gross household income. Subtraction of taxes produces a measure of net disposable household income.

In order to distinguish between the impacts of the different components of benefit income, it is possible to group these into five types: child-related benefits, old age benefits, social exclusion benefits, housing allowances and work-related benefits. The definitions of these are included in the annex.

A final set of seven equivalised household net income measures were used:

- Total pre-transfer income (all benefit income excluded)
- Total post-transfer income
- Income before child-related benefits
- Income before old age benefits
- Income before social exclusion benefits
- Income before housing allowances
- Income before work-related benefits.

There is disagreement in the literature about whether the poverty threshold should be recalculated to change according to the measure of income used. This analysis has opted for a fixed threshold based on final post-transfer disposable income, on the grounds that this makes it easier to observe the impact of benefits. The 'at-risk-of-poverty' rate is calculated for each measure of income based on a threshold of 60% of the median post-transfer income for each country.

RESULTS

Effects of benefits on child poverty rates

Table 1 starts the analysis with all households with children. The first column gives the at-risk of poverty rate after transfers. The next five columns give the percentage reduction in poverty achieved by each type of benefit independently of the others. It is effectively an estimate of how much higher the poverty rate would be if that benefit did not exist assuming no behavioural changes and that no other benefit would replace it.

So for example, Austria has an at-risk of poverty rate after transfers of 12.1%. In Austria the child benefits achieve a 64% reduction in poverty and housing benefits a 9% reduction. In most countries child benefits achieve the largest reduction in child poverty. But in Greece and Poland it is old age benefits. In these countries children may be living with grandparents possibly in multi-generation households. In Denmark and Spain it is work-related benefits that contribute most to poverty reduction. In Denmark this may be because few children are poor if their parent(s) are in employment. In Spain it is probably because there are effectively no child benefits.

Note that in some countries the percentage reduction is a little more than 100%. We think that this must be the consequence (discussed above) of total income being assessed over a year

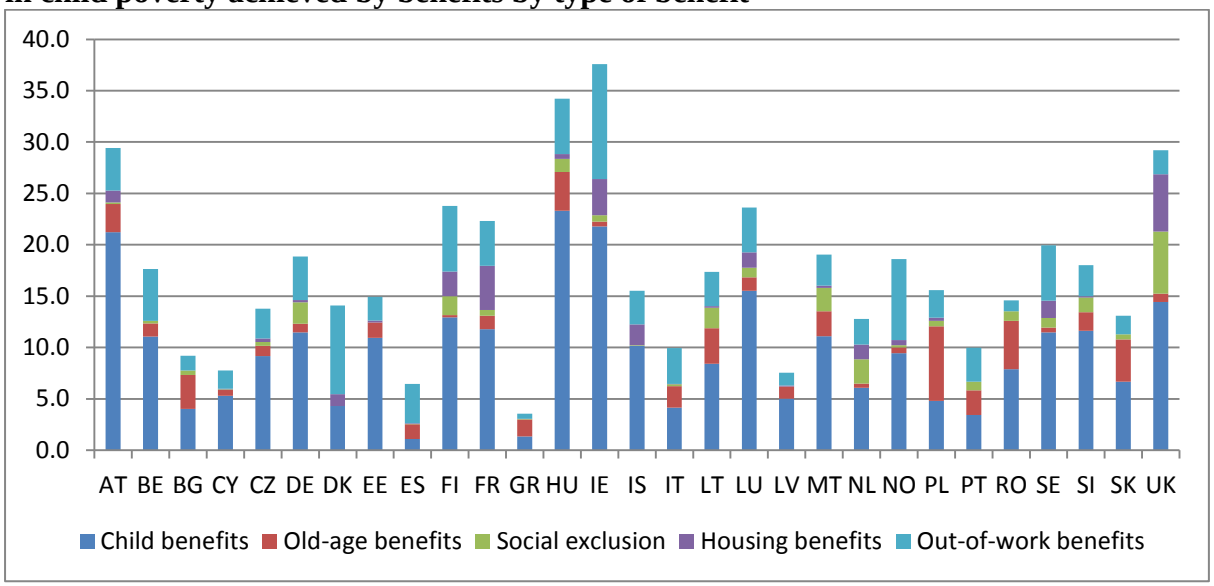
with households moving benefit and employment status over that year. The zeros indicate no benefit income of that type and probably also no benefit of that type.

Table 1: All households with children under 16: % reduction in child poverty achieved by each element of the benefit package

	At-risk-of-poverty (60% median) After transfers	Child benefits	Old-age benefits	Social exclusion benefits	Housing benefits	Work-related benefits
		% reduction in pre transfer child poverty achieved				
AT	12.1	64	18	1	9	26
BE	15.0	42	8	2	0	25
BG	21.0	16	14	2	0	6
CY	9.4	36	6	1	1	16
CZ	10.6	46	9	3	3	22
DE	13.5	46	6	14	1	24
DK	8.5	33	0	0	12	50
EE	14.6	43	9	0	1	14
ES	22.6	5	6	0	0	15
FI	8.9	59	3	17	21	42
FR	16.4	42	8	3	21	21
GR	22.7	6	7	0	0	2
HU	20.7	53	15	6	2	21
IE	15.5	58	3	4	19	42
IS	8.7	54	0	1	19	27
IT	23.3	15	8	1	0	13
LT	18.4	31	16	10	1	15
LU	23.3	40	5	4	6	16
LV	20.9	19	5	0	0	6
MT	16.0	41	13	12	1	16
NL	14.2	30	3	14	9	15
NO	9.5	50	6	2	5	45
PL	22.1	18	25	2	1	11
PT	20.8	14	10	4	0	14
RO	33.2	19	12	3	0	3
SE	10.5	52	4	8	14	34
SI	9.3	56	16	13	2	25
SK	14.9	31	22	3	0	11
UK	19.0	43	4	24	23	11

Table 1 showed the contribution of benefits to the *relative* reduction in child poverty. Figure 2 shows the *absolute* percentage point reduction in child poverty and how it is made up by the different benefits. Ireland achieves the largest reduction, with child benefits and work-related benefits achieving most of this reduction. In contrast Greece achieves very little reduction and most of this is thanks to old age benefits.

Figure 2: All households with children under 16: Absolute percentage point reduction in child poverty achieved by benefits by type of benefit



The analysis above includes all families with children under 16 including 'other' households with children, which are likely to be multi-unit households. Next Table 2 explores the benefit package for couples with children only. Child benefits are still the most important contributor to poverty reduction in most countries. Having dropped other households with children, old age benefits become less important. In the Nordic countries and Ireland work-related benefits are important and in Denmark they again contribute more to poverty reduction than child benefits, again probably because few poor children have a working parent. Unfortunately Portugal does not have valid relationship identifiers and has to be dropped from the rest of the analysis.

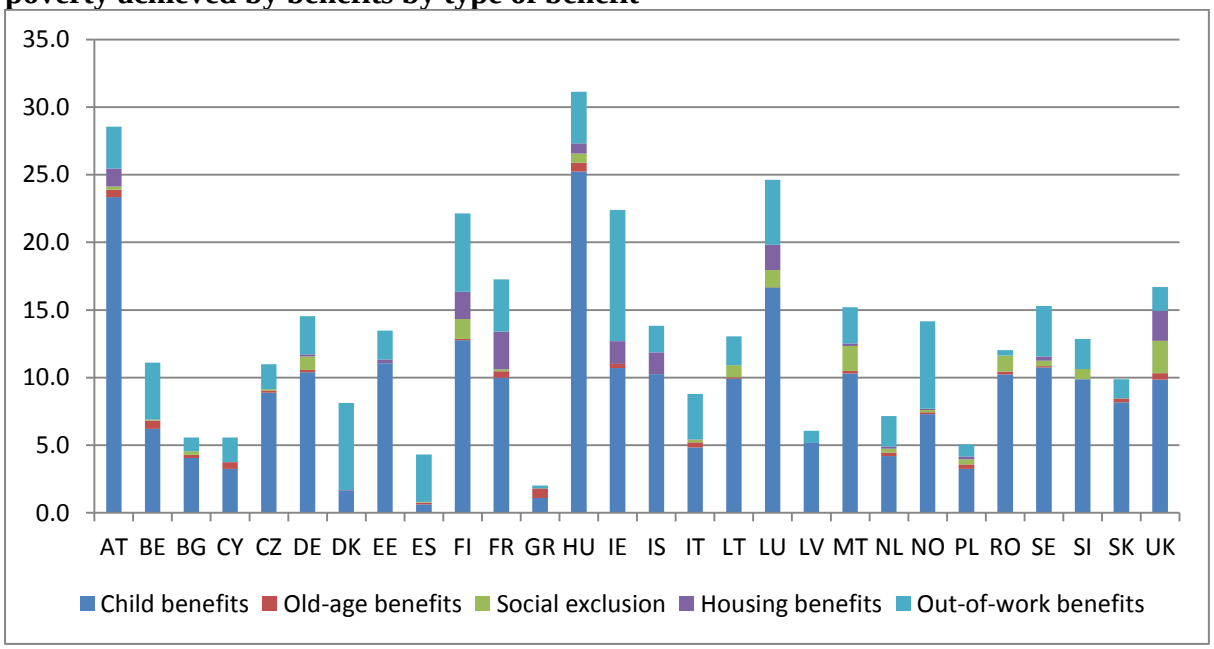
Table 2: Couples with children under 16: % reduction in child poverty achieved by each element of the benefit package

	At-risk-of-poverty (60% median)	Child benefits	Old-age benefits	Social exclusion	Housing benefits	Work-related benefits
		% reduction in pre transfer child poverty achieved				
AT	9.9	70	5	2	12	24
BE	9.9	38	6	1	0	30
BG	14.8	21	1	2	0	7
CY	6.9	32	7	0	0	21
CZ	6.2	59	2	1	0	23
DE	8.2	56	2	11	2	26
DK	7.5	18	0	0	1	46
EE	9.8	53	0	0	3	18
ES	20.5	3	1	0	0	15
FI	7.0	65	1	17	22	45
FR	11.1	47	4	1	20	26
GR	21.8	5	3	0	0	1
HU	18.2	58	3	4	4	17
IE	8.5	56	3	0	17	53

IS	6.0	63	0	0	21	25
IT	20.2	19	2	1	0	14
LT	14.7	40	1	6	0	13
LU	17.2	49	0	7	10	22
LV	15.4	25	0	0	0	6
MT	12.5	45	2	13	2	18
NL	11.6	27	2	2	1	16
NO	4.0	65	3	4	3	62
PL	19.1	14	2	2	1	4
RO	27.3	27	1	4	0	1
SE	7.6	59	1	5	4	33
SI	9.0	52	0	8	0	20
SK	11.2	42	2	0	0	11
UK	14.4	41	3	14	13	11

Figure 3 gives the absolute percentage point reduction. Hungary and Austria have the largest reduction in child poverty for couple families with children and most of it is achieved by child benefits. In Finland and the UK the poverty reduction is achieved by a more mixed combination of types of benefit.

Figure 3: Couples with children under 16: Absolute percentage point reduction in poverty achieved by benefits by type of benefit



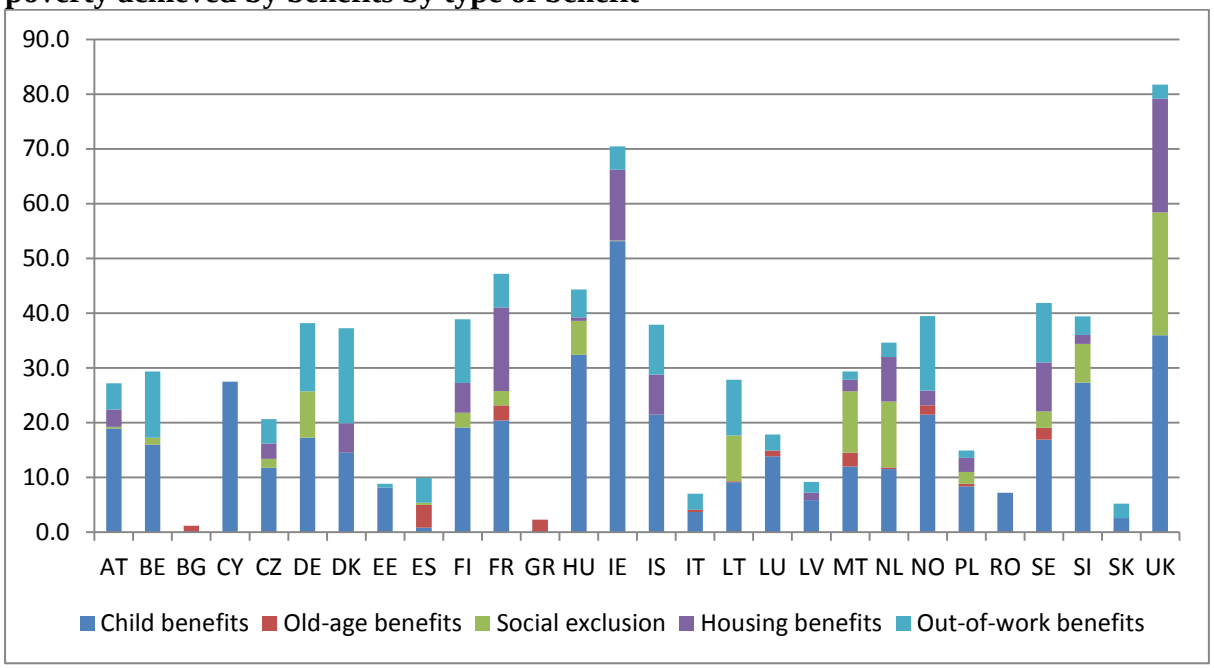
The picture changes somewhat when the analysis is restricted to lone parents with children under 16 in Table 3. Social exclusion and housing benefits now make a larger contribution to poverty reduction in a number of countries, though child benefits are still the largest component in all countries except Denmark. The impact of child benefits and social exclusion and work-related benefits will depend on the employment status of lone parents with children. Housing benefits also now play a bigger part in poverty reduction for lone parents with children in a number of countries.

Table 3: Lone parents with children under 16: % reduction in child poverty achieved by each element of the benefit package

	At-risk-of-poverty (60% median)	Child benefits	Old-age benefits	Social exclusion	Housing benefits	Work-related benefits
		% reduction in pre transfer child poverty achieved				
AT	34.6	35	0	1	8	12
BE	35.3	31	0	4	0	26
BG	29.2	0	4	0	0	0
CY	41.1	40	0	0	0	0
CZ	42.7	22	0	4	6	9
DE	41.0	30	0	17	0	23
DK	11.1	57	0	0	33	61
EE	35.6	19	0	0	0	2
ES	28.4	3	13	1	0	14
FI	18.5	51	0	13	23	39
FR	30.7	40	8	8	33	17
GR	37.3	0	6	0	0	0
HU	25.6	56	0	19	2	17
IE	35.6	60	0	0	27	11
IS	25.5	46	0	0	22	26
IT	33.2	10	1	0	0	8
LT	35.5	20	1	19	0	22
LU	64.4	18	2	0	0	4
LV	40.5	13	0	0	3	5
MT	54.3	18	4	17	4	3
NL	31.0	27	1	28	21	8
NO	27.7	44	6	0	9	33
PL	38.6	18	1	5	6	3
PT	24.6	23	0	0	0	0
RO	22.0	23	0	0	0	0
SE	21.5	43	9	12	29	33
SI	19.6	56	0	25	7	14
SK	29.6	12	0	0	0	12
UK	34.6	55	0	43	41	8

It can be seen in Figure 4 that for lone parents with children under 16 the largest percentage point reduction in poverty is achieved in the UK by a combination of child benefits, social exclusion (social assistance) and housing benefits. Ireland also has big reductions. In contrast Bulgaria, Greece, Latvia and Italy achieve very little poverty reduction for these families.

Figure 4: Lone parents with children under 16: Absolute percentage point reduction in poverty achieved by benefits by type of benefit



It is clear from the above that the labour market status of the parents in these households makes a difference to the impact of the different elements of the package. The work intensity of couples with children under 16 is shown in Table 4a and lone parents 4b with children under 16. Ireland is the only country with more than half of couples with poor children workless. The majority of countries have more than half of couples with poor children employed for more than half of the months available. In fact Belgium, Bulgaria and Ireland are the only exceptions. In contrast a number of countries have very high proportions of lone parents with poor children who are workless.

Table 4a: Work intensity of poor couples with children under 16

	% where no work done or none available	% where less than half available months worked	% where more than half of all available months worked	% where all available months worked
AT	14	24	55	7
BE	40	19	31	10
BG	15	37	39	9
CY	5	15	70	11
CZ	30	18	42	9
DE	25	18	47	11
DK	28	5	39	28
EE	3	25	57	15
ES	7	20	50	22
FI	18	41	34	8

FR	13	13	57	17
GR	1	12	64	23
HU	16	25	55	5
IE	52	4	25	19
IS	0	10	63	27
IT	10	11	72	8
LT	11	16	45	28
LU	4	5	67	24
LV	11	17	64	9
MT	13	8	74	6
NL	9	10	53	27
NO	20	6	49	26
PL	9	15	54	22
RO	13	4	52	31
SE	19	5	50	26
SI	13	7	61	19
SK	19	6	64	11
UK	47	1	32	20

Table 4b: Work intensity of all poor lone parents with children under 16

	% where no work done or none available	% where less than half available months worked	% where more than half of all available months worked	% where all available months worked
AT	49	28	7	16
BE	64	15	7	14
BG	21	14	0	65
CY	23	12	19	46
CZ	73	12	10	6
DE	64	9	6	20
DK	38	0	0	62
EE	14	18	26	41
ES	24	6	16	54
FI	44	29	0	27
FR	47	15	5	33
GR	6	16	0	78
HU	59	5	15	20
IE	87	1	5	7
IS	0	9	40	51
IT	46	8	2	44
LT	27	2	4	67

LU	38	3	8	50
LV	36	12	8	44
MT	86	9	0	5
NL	46	1	20	33
NO	33	7	9	51
PL	44	11	25	21
RO	26	0	0	74
SE	28	7	4	61
SI	45	0	8	47
SK	28	16	13	44
UK	85	0	1	15

Note: the unweighted sample sizes are quite small for many countries. For the countries highlighted the total N is less than 20 cases and likely to be unreliable.

Low work intensity families

The previous analysis has mixed families with very different employment patterns. So we now separate out those with low work intensity – defined using the EU SILC estimate of workable months worked in the last year. Here we select those households constituting couples with children under 16 where fewer than half of the available months during the past year have been worked. It can be seen in Table 5 that the risk of poverty increases for these families. Also naturally more of the poverty reduction is being done by work-related benefits, housing benefits and social exclusion benefits.

Table 5: Couples with children under 16: % reduction in child poverty achieved by each element of the benefit package, fewer than half workable months worked

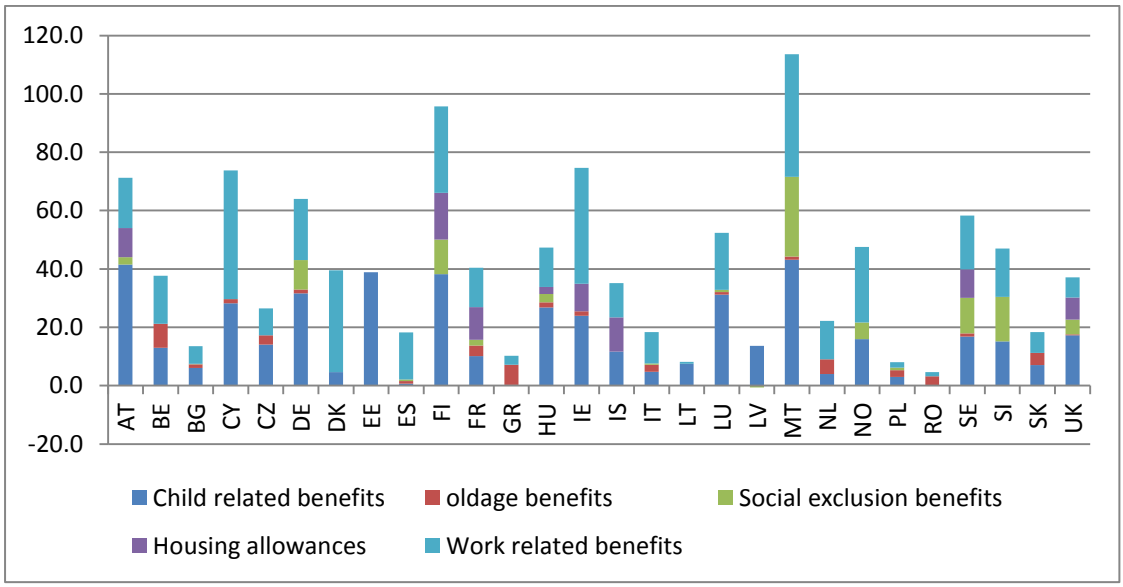
	At-risk-of-poverty (60% median)	Child benefits	Old-age benefits	Social exclusion	Housing benefits	Work-related benefits
Country	% children	% reduction in pre transfer child poverty achieved				
AT	43.2	49	0	5	19	28
BE	78.5	14	9	0	0	17
BG	73.0	8	2	0	0	8
CY	35.8	44	4	0	0	55
CZ	80.0	15	4	0	0	10
DE	46.0	41	3	18	0	31
DK	57.6	7	0	0	0	38
EE	53.4	42	0	0	0	0
ES	63.5	1	1	1	0	20
FI	39.0	49	0	23	29	43
FR	66.5	13	5	3	14	17
GR	56.1	0	11	0	0	5
HU	61.7	30	3	4	4	18
IE	27.5	46	5	0	25	59
IS	39.2	23	0	0	23	23
IT	75.2	6	3	1	0	12

LT	78.0	9	0	0	0	1
LU	64.1	33	1	1	0	23
LV	71.7	16	0	-1	0	0
MT	33.5	56	3	45	0	56
NL	71.1	5	7	0	0	16
NO	38.1	29	0	13	0	40
PL	64.7	4	3	1	0	3
RO	85.3	0	4	0	0	2
SE	55.0	23	2	18	15	25
SI	82.1	16	0	16	0	17
SK	88.8	7	4	0	0	7
UK	34.8	33	1	13	18	17

N<20

Figure 5 shows that Malta and Finland make most effort to reduce low work intensity poverty for couples with children. In contrast Bulgaria, Lithuania, Poland and Romania achieve very little reduction in their high levels of unemployment related child poverty.

Figure 5: Couples with children under 16: Absolute percentage point reduction in poverty achieved by benefits by type of benefit. Fewer than half of workable months worked



High work intensity households

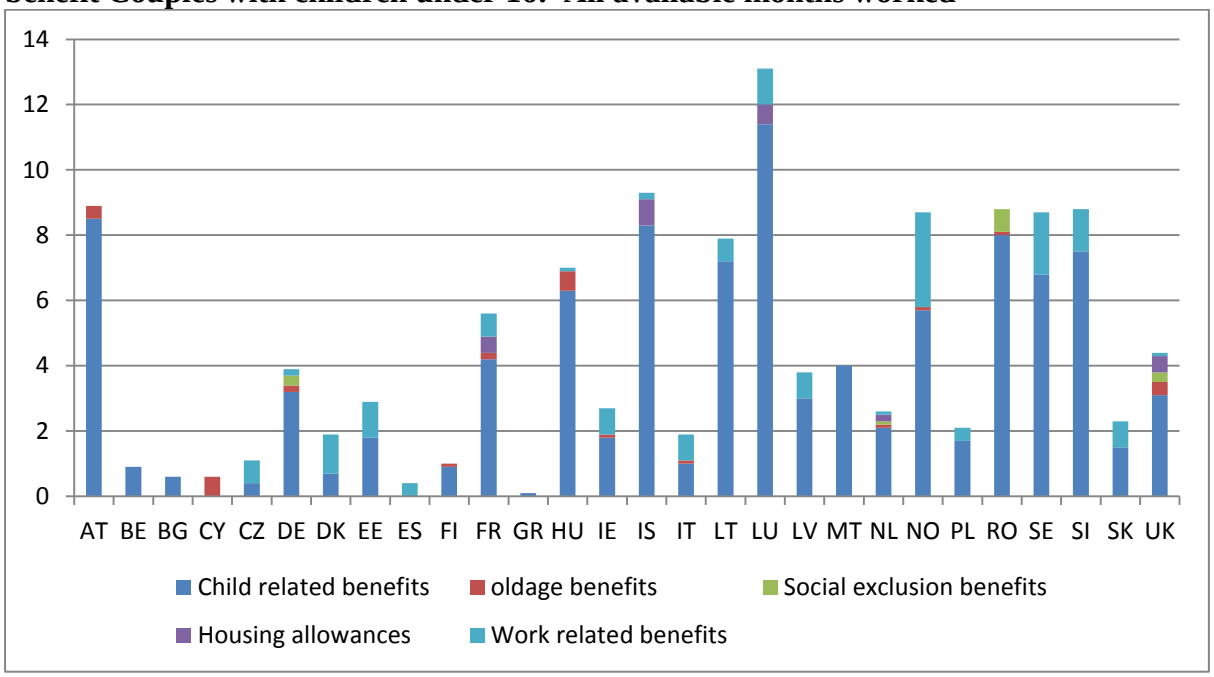
Table 6 shows that the poverty rates for high work intensity couple households are very much lower in all countries though the percentage reduction in the poverty rates achieved by benefits are neverthless quite large. Thus for example without child benefits in Austria this group of families would have a poverty rate of 10.4% instead of 1.9% - a reduction of 82%. Most of the reduction is achieved by child benefits.

Table 6: Couples with children under 16: % reduction in child poverty achieved by each element of the benefit package. All available months worked

	At-risk-of-poverty (60% median)	Child benefits	Old-age benefits	Social exclusion	Housing benefits	Work-related benefits
Country	% children	% reduction in pre transfer child poverty achieved				
AT	1.9	82	17	0	0	0
BE	1.8	33	0	0	0	0
BG	2.9	17	0	0	0	0
CY	1.3	0	32	0	0	0
CZ	1.2	25	0	0	0	37
DE	1.6	67	11	16	0	11
DK	2.8	20	0	0	0	30
EE	2.9	38	0	0	0	28
ES	9.1	0	0	0	0	4
FI	1.3	41	7	0	0	0
FR	3.2	57	6	0	14	18
GR	9.9	1	0	0	0	0
HU	1.4	82	30	0	0	7
IE	4.1	31	2	0	0	16
IS	2.1	80	0	0	28	9
IT	3.0	25	3	0	0	21
LT	7.1	50	0	0	0	9
LU	8.8	56	0	0	6	11
LV	2.9	51	0	0	0	22
MT	1.9	68	0	0	0	0
NL	4.8	30	2	2	4	2
NO	1.3	81	7	0	0	69
PL	7.9	18	0	0	0	5
RO	14.4	36	1	5	0	0
SE	2.8	71	0	0	0	40
SI	2.0	79	0	0	0	39
SK	1.7	47	0	0	0	32
UK	5.4	36	7	5	8	2

Figure 6 shows the absolute reduction in child poverty achieved, mainly by child benefits.

Figure 6 Absolute percentage point reduction in poverty achieved by benefits by type of benefit Couples with children under 16: All available months worked



This analysis has shown the contribution made by social transfers to reducing the poverty rate. But cash benefits also contribute to closing the poverty gap - and without necessarily reducing the poverty rate? The next section calculates the net pre-transfer poverty gap and show how much different benefits contribute to closing it.

Effects of benefits on poverty gaps

The relative median at-risk-of-poverty gap measures the depth, rather than the prevalence, of poverty. It is calculated as the difference between the median equivalised disposable income of people below the at-risk-of-poverty threshold and the at-risk-of-poverty threshold, expressed as a percentage of the at-risk-of-poverty threshold (cut-off point: 60 % of national median equivalised disposable income).

Figure 8 compares the overall poverty gaps. This shows the averages. Before transfers the gaps are largest in Ireland and the UK but also over 50% in Belgium, Germany and Denmark. Negative values for post-transfer gaps indicate that for households with children classified as poor before benefit incomes are included, post-transfer incomes now exceed the poverty line **on average**, not for every household but on average. In other words the poverty gap has been completely closed for many households. Taking all social benefits into account – they have been lifted above the poverty threshold, the poverty rate has fallen. A positive average gap remains in Greece, Spain, Italy, Latvia, Bulgaria, and Romania. Cyprus, Portugal, Poland, and Luxembourg. These are the countries that achieve least reduction in their poverty gaps (plotted on the right hand axis). Slovenia, Iceland, Hungary, Norway and Denmark achieve the largest percentage reduction in their poverty gaps on average.

Figure 8: All poor families with children under 16: Pre transfer and post transfer % poverty gaps. % reduction in average poverty gaps on right hand axis.

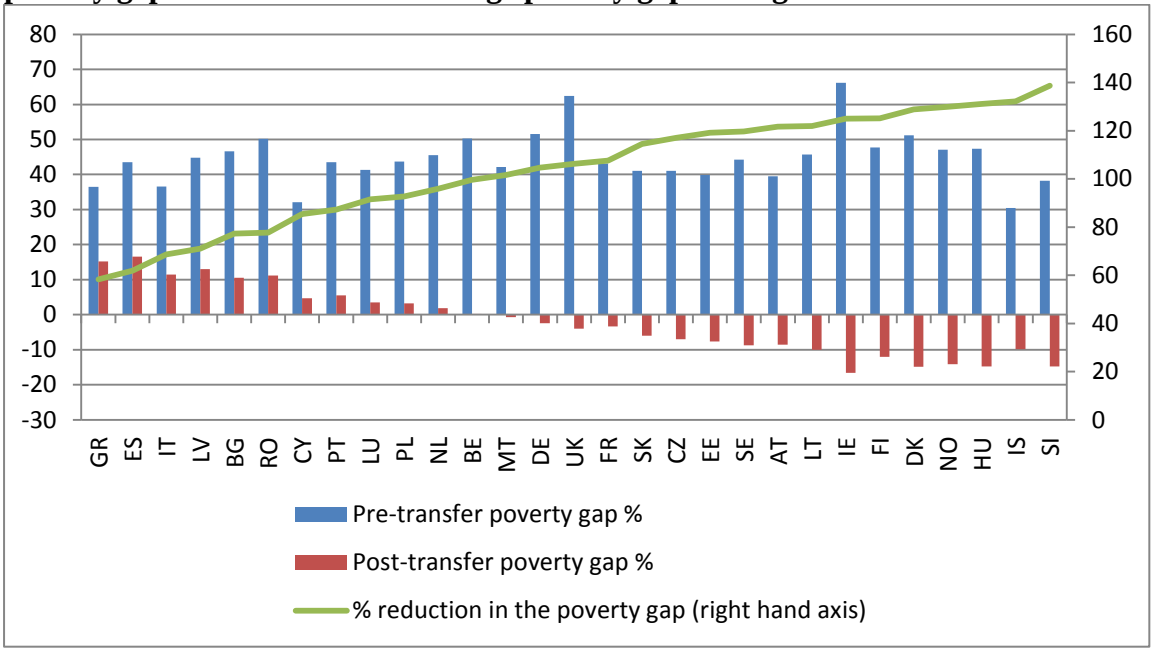


Figure 9 shows the contribution of benefits to reducing the poverty gap for lone parents. Ireland, Iceland and the UK achieve the biggest reduction in their pre transfer poverty gaps and most of the reduction in these countries is contributed by child related benefits. In Spain and Greece old age benefits make the largest contribution to closing the poverty gap. In France, Finland and the UK housing benefits make a big contribution.

Figure 9: Poor lone parent households with children under 16. % contribution to closing the poverty gap

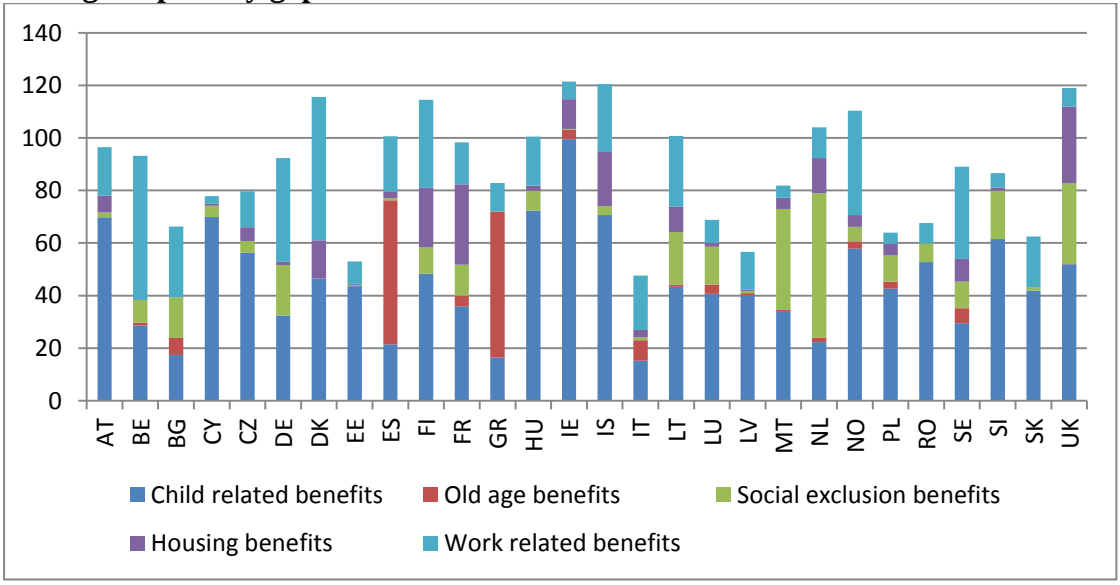


Figure 10 repeats the analysis for poor couple households with children. Norway, Estonia and Sweden achieve the biggest reductions in their poverty gap and Greece least. In the majority of countries it is either child related benefits or work related benefits that are reducing the poverty gap most. In Greece it is old age benefits.

Figure 10: Poor couple households with children under 16. % contribution to closing the poverty gap

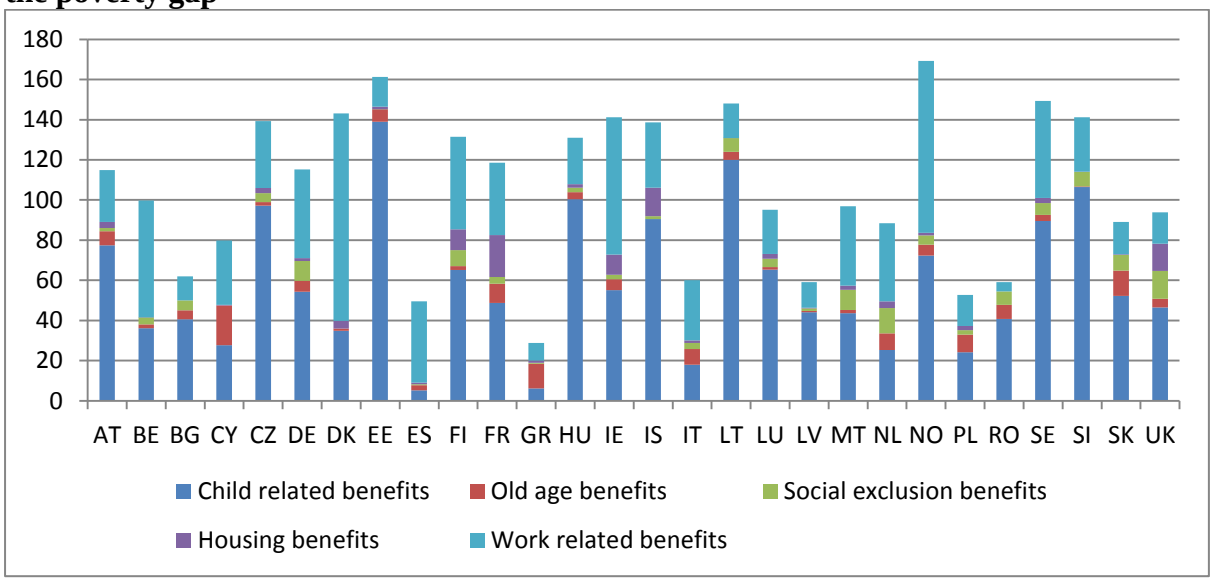


Figure 12 shows that there is quite a close association between the size of the reduction in the poverty rate and the size of the reduction in the poverty gap achieved by transfers. Austria achieves more rate reduction and Lithuania more gap reduction.

Figure 12: Relationships between poverty rates and poverty gaps: all families with children under 16.

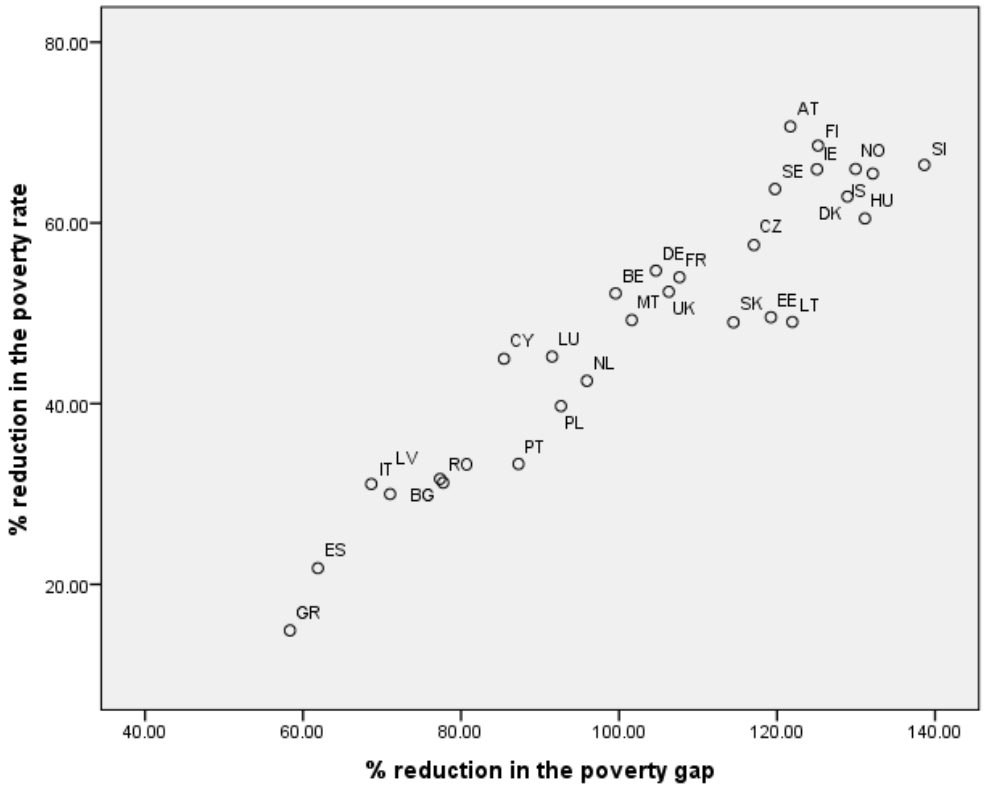
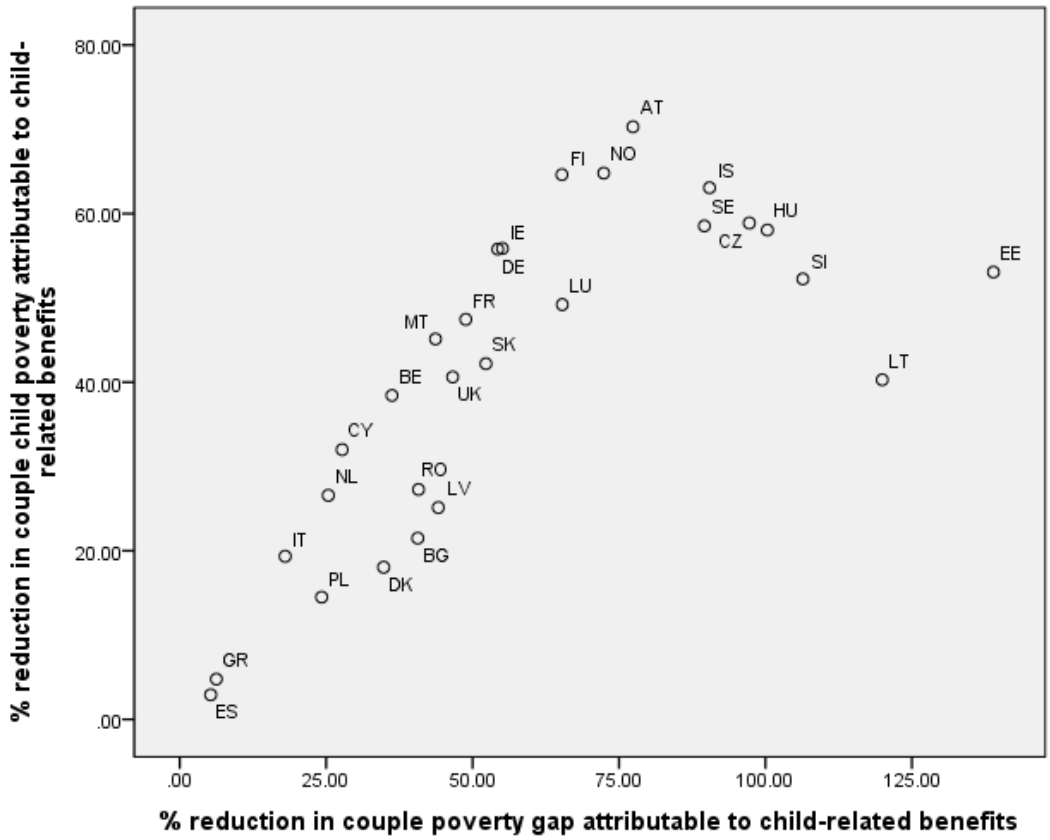


Figure 13 shows the results of a similar analysis, but restricting the analysis to couples with children, and the transfers to child related benefits. Lithuania and Estonia achieve bigger

reductions in their gaps than their rates while Austria, Norway and Finland are more successful in in reducing their child poverty rates than they are in closing the gaps. This may be an indication of the more targeted nature of child related benefits in Lithuania and Estonia.

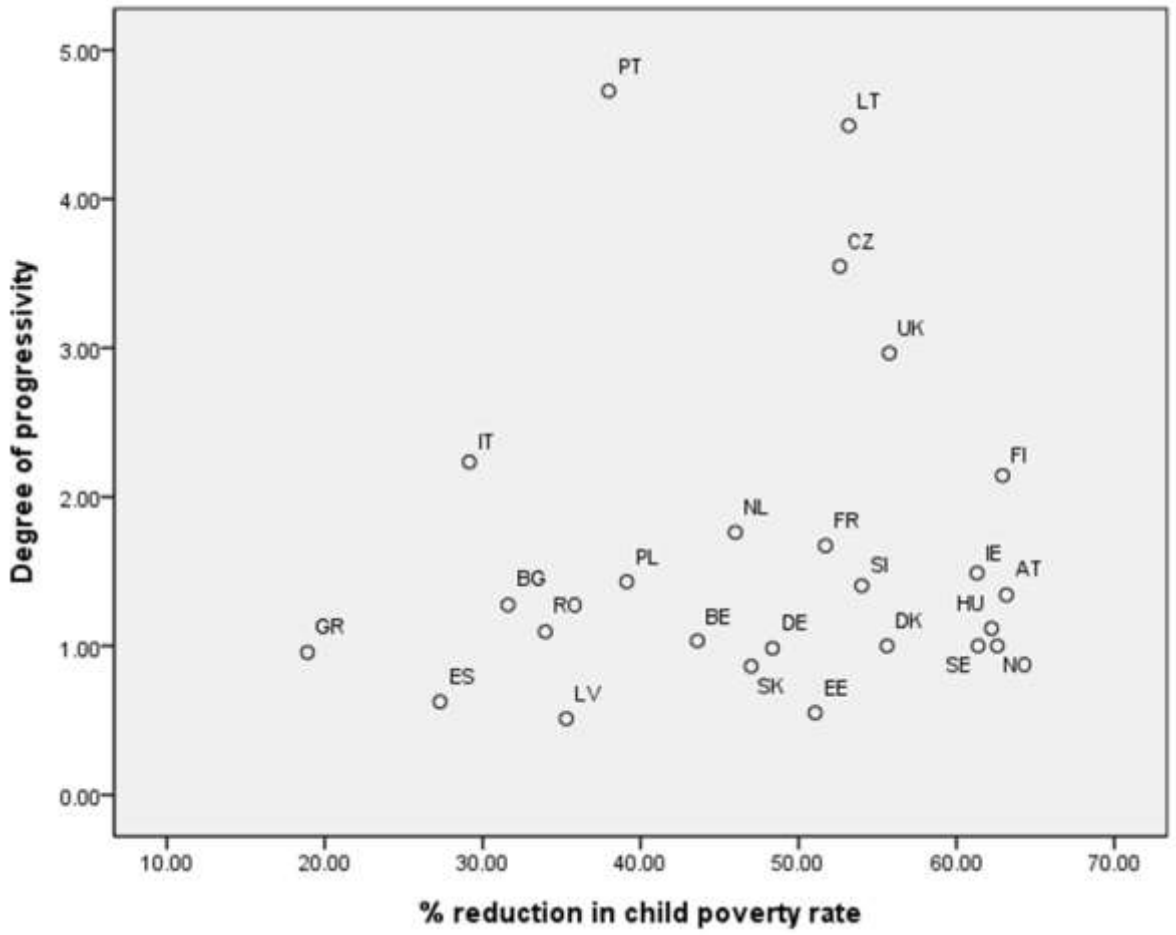
Figure 13: Reduction in poverty rates and gaps due to child related benefits



One question that often arises in exploring the efficacy of benefit systems is whether means-tested or universal benefits are more successful in poverty reduction. We have not been able to explore this issue in this paper because it is not clear in SILC which benefits are means-tested or not. Using model family methods Van Mechelen and Bradshaw[10] assessed the progressivity (degree of targeting) of in-work benefits for families with children and there is no evidence in Figure 14 that there is a relationship between progressivity and the child poverty reduction achieved.

[10] Van Mechelen, N. and Bradshaw, J. (2013) Child benefit packages for working families, 1992-2009 Marx I. & K. Nelson (eds.) Minimum Income Protection in Flux. Houndmills, Basingstoke, Hampshire: Palgrave Macmillan 81-107

Figure 14: Degree of progressivity and % reduction in the child poverty rate



CONCLUSION

Transfers make a substantial contribution to reducing child poverty rates and closing poverty gaps. The contribution varies between countries in the European Union. But there does not seem to be a single model, nor a most successful exemplar. Some countries do better for their poor children in lone parent households and others do better for their poor children in couple households. Some are better at reducing rates than they are in reducing gaps and vice versa. In countries where most of their poor children are living in households with low work intensity then it is work related benefits that almost by definition achieve most of the poverty reduction. In countries with most poor children in employed households, child related benefits are most important. Housing benefits play a minor role in some countries as do social exclusion benefits. Old age benefits make a surprising contribution to child poverty reduction. This phenomenon has been observed before in developing countries but not before in the European Union. It is partly a function of high proportions of multi-unit households in many southern and EU10+2 countries and probably partly due to the classification of some benefits as old age or pension benefits which are paid to early-retired or non-retired adults.

There is certainly no evidence here that if a country has a particular kind of transfer it is the key to unlocking child poverty reduction. All countries work with packages of provision.

Some benefits are more aimed at social investment than social protection but they still have a poverty reduction effect. Other benefits aimed more purely at social protection such as unemployment benefits may not be high enough to achieve much poverty rate reduction but nevertheless reduce poverty gaps.

There is evidence here that the countries that make most effort in terms of expenditure on family benefits (and sevices) achieve most poverty reduction. But this depends to a considerable extent on how much market driven child poverty there is. Ireland and the UK, for example achieve quite a lot of child poverty reduction. But they need to because their pre-transfer poverty rates are so high due to mainly low work intensity. Countries like Greece and Spain make less effort but although they have lower pre transfer child poverty they end up with higher post transfer child poverty rates. So effort matters.

As well as there being no model country, there does not appear to be a model group of countries or regimes. Corporatist Austria and Liberal Ireland do as well or better than Social Democratic Nordic countries. Though the Southern EU and former Eastern bloc tend to do less well in horizontal redistribution there are exceptions, for example Cyprus and Hungary and Slovenia.

The analysis has enabled some further opening up of 'the black box' referred to in the introduction, though what is going on is still something of a mystery especially in relation to work related in some of the Nordic countries. It is probable that analysis at national level with greater knowledge of the national benefits systems is necessary to fully open the 'black box'.

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ANNEX

1. Child-related benefits include:

(a) Survivor's benefits

Survivors' benefits refer to benefits that provide a temporary or permanent income to people below retirement age who have suffered from the loss of their spouse, partner or next-of-kin, usually when the latter represented the main breadwinner for the beneficiary.

(b) Education-related allowances

These include grants, scholarships and other education help received by students.

(c) Family/Children related allowance

Benefits that:

– provide financial support to households for bringing up children;

– provide financial assistance to people who support relatives other than children

It includes income maintenance benefit in the event of childbirth; birth grant; parental leave benefit; family or child allowance; alimonies or /child support; other cash benefits such as costs arising from the specific needs of single adult with children families or families with handicapped children.

2. Old age benefits

Old age benefits cover benefits that: provide a replacement income when the aged person retires from the labour market, or guarantee a certain income when a person has reached a prescribed age. It includes: old age pensions; anticipated old age pensions; partial retirement pensions; care allowances; survivor's benefits paid after the standard retirement age; disability cash benefits paid after the standard retirement age; lump-sum payments at the normal retirement date; other cash benefits paid upon retirement or on account of old age

3. Social exclusion benefits not elsewhere classified

Income support: periodic payments to people with insufficient resources; other cash benefits; support for destitute and vulnerable persons to help alleviate poverty or assist in difficult situations.

4. Housing allowances

Rent benefit or benefit to owner-occupiers: a means-tested transfer by a public authority to tenants or owner occupiers to alleviate their current housing costs.

5. Work related benefits include:

(a) Sickness benefits

(b) Disability benefits

(c) Unemployment benefits